

06-25-05

IFW

ATTORNEY DOCKET NO.
074263.0208

1

PATENT APPLICATION
10/766,494



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen
Serial No.: 10/766,494
Filing Date: January 28, 2004
Group Art Unit: 2128
Examiner: Hugh M. Jones
Title: **ROLLER-CONE BITS, SYSTEMS, DRILLING
METHODS, AND DESIGN METHODS WITH
OPTIMIZATION OF TOOTH ORIENTATION**

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

EXPRESS MAIL CERTIFICATE	
NO.: EV 322271697 US	
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Name:	<u>Willie Jiles</u> Willie Jiles
Date:	<u>6-13-05</u>

SNL69T2222EVA3

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully submits this Information Disclosure Statement and attached PTO Form 1449 and requests, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application. Copies of these references are also enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

ATTORNEY DOCKET NO.
074263.0208

2

PATENT APPLICATION
10/766,494

This Information Disclosure Statement is submitted before an Office Action on the merits, and therefore, pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. However, if a fee is due, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant



Luke K. Pedersen
Reg. No. 45,003
Phone: 214.953.6655

Date: 6/13/05

CORRESPONDENCE ADDRESS:

Customer Number: **31625**
Attorney Docket Number: 074263.0208

PTO-1449

Application No.

Applicant(s)

Information Disclosure Citation
in an Application

10/766,494

Shilin Chen

Docket Number

Group Art Unit

Filing Date

074263.0208

2128

January 28, 2004

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	2038386	4/21/36	F.L. Scott et al.	255	71	3/9/35
B.	4455040	6/19/84	Shinn	285	142	8/3/81
C.	4738322	4/19/88	Hall et al.	175	329	5/19/86
D.	5351770	10/4/94	Cawthorne et al.	175	374	6/15/93
E.	5513711	05/07/96	Williams	175	57	08/31/94
F.	5579856	12/3/96	Bird	175	375	06/05/95
G.	5595255	01/21/97	Huffstutler	175	331	08/08/94
H.	5636700	06/10/97	Shamburger, Jr.	175	331	01/03/95
I.	5697994	12/16/97	Packer et al.	51	309	5/15/95
J.	5967245	10/19/99	Garcia et al.	175	374	6/20/97
K.	6308790	10/30/01	Mensa-Wilmot et al.	175	73	12/22/99
L.	6607047	8/19/03	Swadi et al.	175	374	4/1/99
M.	6619411	9/16/03	Singh et al.	175	57	1/31/01
N.	6729420	5/4/04	Mensa-Wilmot	175	385	3/25/02
O.	2004/0254664	12/16/04	Centala et al.	700	97	3/25/04
P.	2005/0015230	1/20/05	Centala et al.	703	10	7/13/04

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
Q.	2305195 A	4/2/97	GB	E21B	10/08	X	
R.	2363409 A	6/4/01	GB	E21B	10/16	X	
S.	2365899 A	2/27/02	GB	E21B	10/16	X	

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
T.	Drawing No. A46079 Rock Bit and Hole Opener; Security Engineering Co., Inc., Whittier, California <i>one page</i>	09/14/46
U.	"Machino Export", Russia, 4 pages	1974
V.	R.K. Dropek, "A Study to Determine Roller Cone Cutter Offset Effects at Various Drilling Depths" American Society of Mechanical Engineers. 10 pages.	8/1/79
W.	U.S. Patent Application Serial No. 10/325,650 filed December 19, 2002 by John G. Dennis, entitled <i>after priority date</i> Drilling with Mixed Tooth Types.	Filed 12/19/02
X.	British Search Report for GB Patent Application No. 0504304.7, 4 pgs	4/22/2005

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

05-24-05

12W

ATTORNEY DOCKET NO.
074263.0208

1

PATENT APPLICATION
10/766,494



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen
Serial No.: 10/766,494
Filing Date: January 28, 2004
Group Art Unit: 2128
Examiner: Hugh M. Jones
Title: **ROLLER-CONE BITS, SYSTEMS, DRILLING
METHODS, AND DESIGN METHODS WITH
OPTIMIZATION OF TOOTH ORIENTATION**

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

EXPRESS MAIL CERTIFICATE NO.: EV 323314235 US	
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Name:	<u>Willie Jiles</u> Willie Jiles
Date:	<u>5-23-05</u>

525247EE2EVA3

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully submits this Information Disclosure Statement and attached PTO Form 1449 and requests, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application. Copies of these references are also enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

ATTORNEY DOCKET NO.
074263.0208

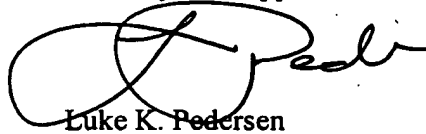
2

PATENT APPLICATION
10/766,494

This Information Disclosure Statement is submitted before an Office Action on the merits, and therefore, pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. However, if a fee is due, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant

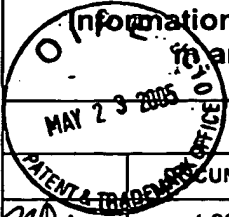


Luke K. Pedersen
Reg. No. 45,003
Phone: 214.953.6655

Date: 5/20/05

CORRESPONDENCE ADDRESS:

Customer Number: **31625**
Attorney Docket Number: 074263.0208

PTO-1449 	Application No.	Applicant(s)	
	10/766,494	Shilin Chen	
	Docket Number	Group Art Unit	Filing Date
	074263.0208	2128	January 28, 2004

U.S. PATENT DOCUMENTS

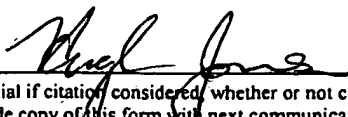
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	4,285,409	08/25/1981	Allen	175	336	06/28/1979
B	4,776,413	10/11/1988	Forsberg	175	410	09/02/1986
C	5,285,409	02/08/1994	Hwangbo et al.	365	189.12	04/21/1992
D	5,291,807	03/08/1994	Vanderford et al.	76	108.2	08/10/1992
E						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
F							
G							
H							
I							

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
J		
K		
L		
M		
N		
O		
P		
Q		
R		
S		
T		
U		

EXAMINER	DATE CONSIDERED
	9/22/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET
074263.0208

PATENT APPLICATION
10/766,494



1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen
Serial No.: 10/766,494
Date Filed: January 28, 2004
Group Art Unit: 2128
Examiner: Hugh M. Jones
Title: **ROLLER-CONE BITS, SYSTEMS, DRILLING
METHODS, AND DESIGN METHODS WITH
OPTIMIZATION OF TOOTH ORIENTATION**

MAIL STOP AMENDMENT
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

EXPRESS MAIL CERTIFICATE
NO.: EV 323313901 US

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Name:

Willie Jiles
Willie Jiles

Date:

1-31-05

Dear Sir or Madam:

323313901 EV

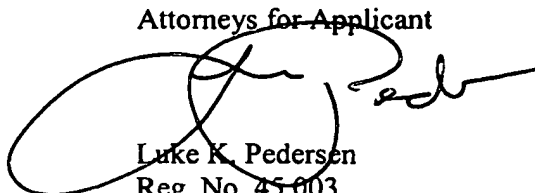
INFORMATION DISCLOSURE STATEMENT

Applicant respectfully submits this Information Disclosure Statement and attached PTO Form 1449 and requests, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application. Copies of these references are also enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

This Information Disclosure Statement is submitted before an Office Action on the merits, and therefore, pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. However, if a fee is due, the Commissioner is authorized to charge such fee to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant



Luke K. Pedersen
Reg. No. 45,003
Phone: (214) 953-6655

Date: _____

1/31/05

CORRESPONDENCE ADDRESS:

Customer Number: **31625**
Attorney Docket Number: 074263.0208

PTO-1449

Application No.

Applicant(s)

10/766,494

Shilin Chen

Docket Number

Group Art Unit

Filing Date

074263.0208

2128

January 28, 2004

**Information Disclosure Citation
in an Application**

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A						
B						
C						
D						
E						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
F							
G							
H							
I							

NON-PATENT DOCUMENTS

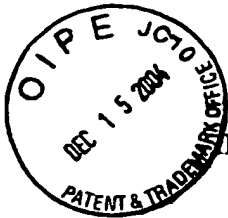
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
J	Rabia, H., Oilwell Drilling Engineering: Principles and Practice, University of Newcastle upon Tyne, 331 pages	1985
K	Brief Communication from European Patent Office enclosing letter from the opponent dated December 2, 2004 (074263.0281)	
L		
M		
N		
O		
P		
Q		
R		
S		
T		
U		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE



1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen
Serial No.: 10/766,494
Date Filed: January 28, 2004
Group Art Unit: 2128
Examiner: Hugh M. Jones
Title: **ROLLER-CONE BITS, SYSTEMS, DRILLING
METHODS, AND DESIGN METHODS WITH
OPTIMIZATION OF TOOTH ORIENTATION**

Mail Stop AMENDMENT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

EXPRESS MAIL CERTIFICATE NO.: EV 473953689 US	
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Name:	<u>Willie Jiles</u> Willie Jiles
Date:	<u>December 15, 2004</u>

EV473953689US

INFORMATION DISCLOSURE STATEMENT

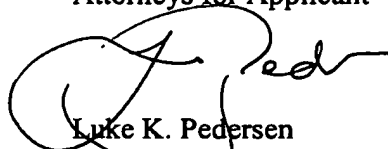
Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified patent application. Copies of these references are enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

The subject matter of a related patent was involved in Civil Action No. 4-02CV269 in the United States District Court for the Eastern District of Texas, Sherman Division, styled *Halliburton Energy Services, Inc. v. Smith International, Inc.* (the "Litigation"). The attached PTO-1449 form includes documents relating to the Litigation. Applicant requests that such documents be considered and cited in the examination of the above-identified patent application.

This Information Disclosure Statement is submitted before an Office Action on the merits, and therefore, pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. However, if a fee is due, the Commissioner is authorized to charge such fee to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant



Luke K. Pedersen
Reg. No. 45,003
PHONE: (214) 953-6655

Date: 12/15/04

CORRESPONDENCE ADDRESS:

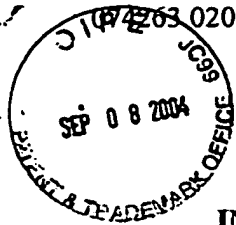
Customer Number: 31625
Attorney Docket Number: 074263.0208

PTO-1449		Application No. 10/766,494		Applicant(s) Shilin Chen		
Information Disclosure Citation in an Application		Docket Number 074263.0208		Group Art Unit 2128	Filing Date January 28, 2004	
U.S. PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	2004/0167762	08/26/04	Chen	703	10	02/26/2004
B.						
C.						
D.						
E.						
F.						
G.						
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
H.	CN 2082755U	8/14/91	China	E 21 B	10/50	X
I.						
J.						
NON-PATENT DOCUMENTS						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
K.	Communication of a Notice of Opposition filed October 4, 2004 with the European Patent Office					10/04/2004
L.	Communication of a Notice of Opposition filed October 21, 2004, with the European Patent Office					10/21/2004
M.	Brief Communication from European Patent Office enclosing letter from the opponent of October 13, 2004					10/22/2004
N.	Composite Catalog of Oil Filed Equipment & Services, 27th Revision 1666-67 Volume 3					1966
O.	Lecture Handouts, Rock Bit Design, Dull grading, Selection and Application, presented by Reed Rock bit Company					10/16/1980
P.	Longer Useful Lives for Roller Bits Cuts Sharply into Drilling Costs, South African Mining & Engineering Journal, Vol. 90, pgs. 39-43					3/1979
Q.						
R.						
LITIGATION DOCUMENTS						
S.	Memorandum Opinion of Judge Davis, signed February 13, 2004, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 37 pages (including fax coversheet).					02/19/2004
T.	Final Judgment of Judge Davis, signed August 13, 2004, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 3 pages					08/13/2004
U.	Sworn written statement of Stephen Steinke and Exhibits SS-1 to SS-6					10/13/2004
V.						
EXAMINER <i>Rachel Jones</i>					DATE CONSIDERED 9/22/05	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

U.S. PATENT AND TRADEMARK OFFICE

Attorney's Docket:

10/766,494 0208



9-10-04

CONTINUATION
PATENT APPLICATION

IFC

1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen
Serial No. 10/766,494
Filing Date: January 28, 2004
Group Art Unit: 3672
Title: **ROLLER-CONE BITS, SYSTEMS, DRILLING
METHODS, AND DESIGN METHODS WITH
OPTIMIZATION OF TOOTH ORIENTATION**

MAIL STOP AMENDMENT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

<p>EXPRESS MAIL CERTIFICATE NO.: EV 473960438 US</p> <p>I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.</p> <p>Name: <u>Willie Jiles</u> Willie Jiles</p> <p>Date: <u>September 8, 2004</u></p>

EV473960438US

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified patent application. Copies of these references are enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

Attorney's Docket:
074263.0208

CONTINUATION
PATENT APPLICATION

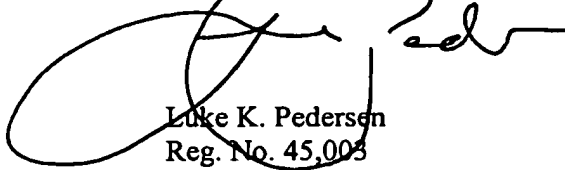
2

Since the present Application was filed after June 30, 2003, a copy of any U.S. Patent and any U.S. Patent Application Publication cited on the attached PTO Form 1449 is not being submitted with this Information Disclosure Statement pursuant to the July 11, 2003 waiver of 37 C.F.R. S 1.98(a)(2)(i) by the U.S. Patent and Trademark Office.

This Information Disclosure Statement is submitted before an Office Action on the merits, and therefore, pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. However, if a fee is due, the Commissioner is authorized to charge such fee to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant



Luke K. Pedersen
Reg. No. 45,003

Date: 9/8/04

CORRESPONDENCE ADDRESS

Customer Number: **31625**
Attorney Docket No.: 074263.0208

PTO-1449

Application No.
10/766,494Applicant(s)
Shilin ChenInformation Disclosure Citation
In an application

Docket Number

074263.0208
(SC-98-026 CON2-B)

Group Art Unit

3672

Filing Date

Jan. 28, 2004

SEP 10 2004
U.S. PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	1,209,299	12/19/1916	Hughes	--	--	12/30/1914
B	1,263,802	04/23/1918	Reed	--	--	08/13/1917
C	1,394,769	10/25/1921	Sorensen	--	--	05/18/1920
D	4,056,153	11/01/1977	Miglierini	175	376	07/16/1976
E	4,627,276	12/09/1986	Burgess et al.	73	151	12/27/1984
F	5,010,789	04/30/1991	Brett et al.	76	108.2	10/06/1989
G	5,042,596	08/27/1991	Brett et al.	175	57	07/12/1990
H	5,131,478	07/21/1992	Brett et al.	175	57	06/10/1990
I	5,216,917	06/08/1993	Detournay	73	151	07/11/1991
J	RE 34,435	11/09/1993	Warren et al.	175	398	03/11/1992
K	5,305,836	04/26/1994	Holbrook et al.	175	39	04/08/1992
L	5,456,141	10/10/1995	Ho	76	108.2	11/12/1993
M	5,605,198	02/25/1997	Tibbitts et al.	175	432	04/28/1995
N	5,767,399	06/16/1998	Smith et al.	73	152.11	03/25/1996
O	6,142,247	11/07/2000	Pessier	175	340	07/19/1996
P	6,348,110	02/19/2002	Evans	148	528	04/05/2000

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
A1	1654515 A1	03/29/1988	SU	E 21 B	10/16	X	
R	1691497 A1	05/30/1988	SU	E 21 B	10/16	X	
S	0384734 A1	08/29/1990	EPO	E 21 B	10/46	X	
T	2367578 A	04/10/2002	GB	E 21 B	10/56	X	
U	2367579 A	04/10/2002	GB	E 21 B	10/56	X	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

PTO-1449	Application No. 10/766,494		Applicant(s) Shilin Chen	
	Docket Number 074263.0208 (SC-98-026 CON2-B)	Group Art Unit 3672	Filing Date Jan. 28, 2004	

**Information Disclosure Citation
In an Application**

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
<i>AX</i> A	6,349,595	02/26/2002	Civolani et al	73	152.02	09/27/2000
<i>1</i> B	6,374,930	04/23/2002	Singh et al.	175	374	06/08/2000
<i>1</i> C	6,516,293	02/04/2003	Huang et al.	703	10	03/13/2000
<i>AX</i> D	6,533,051	03/18/2003	Singh et al.	175	371	09/07/1999
<i>AX</i> E	2004/0045742 A1	03/11/2004	Chen	175	374	03/08/2003
<i>AX</i> F	2004/0104053 A1	06/03/2004	Chen	175	341	03/08/2003
<i>AX</i> G						
H						
I						

	OTHER DOCUMENTS (Including Author, Title, Source, and Pertinent Pages)	DATE
<i>AX</i> J	M.C. Sheppard, et al., "Forces at the Teeth of a Drilling Rollercone Bit: Theory and Experiment", Proceedings: 1988 SPE Annual Technical Conference and Exhibition; Houston, TX, USA, Oct. 2-5, 1988, Vol. Delta, 1988, pp 253-260 18042, XP002266080, Soc. Pet Eng AIME Pap SRE 1988 Publ by Soc of Petroleum Engineers of AIME, Richardson, TX, USA	
<i>AX</i> K	T.M. Warren et al, "Drag-Bit Performance Modeling", SPE Drill Eng. June 1989, Vol. 4, No. 2, pp 119-127 15618, XP002266079	
<i>AX</i> L	T.M. Warren, "Factors Affecting Torque for A Roller Cone Bit", JPT J PET Technol Sept. 1984, Vol. 36, No. 10, pp 1500-1508, XP002266078	
<i>AX</i> M	D.K. Ma, A New Method of Description of Scraping Characteristics of Roller Cone Bit, Petroleum Machinery, July, 1988 (English translations with original Chinese version attached) <i>no page #s</i>	
<i>AX</i> N	Wilson C. Chin, Wave Propagation in Petroleum Engineering (1994) <i>no page #s</i>	
<i>AX</i> O	Brochure entitled "Twist & Shout", (SB2255.1001), 4 pages <i>no date</i>	
<i>AX</i> P	B.L. Steklyanov, et al, "Improving the Effectiveness of Drilling Tools," Series KhM-3, Oil Industry Machine Building, pub. Central Institute for Scientific and Technical Information and Technical and Economic Research on Chemical and Petroleum Machine Buidling, Tsintikhimneftemash, Moscow, 1991 (translated from Russian) <i>no page #s</i>	
<i>AX</i> Q	Energy Balanced Series Roller Cone Bits, www.halliburton.com/oil_gas/sd1380.jsp <i>no date</i>	
<i>AX</i> R	Ashmore, et al, Stratapax™ Computer Program, Sandia Laboratories, Albuquerque, NM, (76 pages) <i>no date</i>	
<i>AX</i> S	F.A.S.T.™ Technology Brochure entitled "Tech Bits", Security/Dresser Industries, Sept. 17, 1993 (1 page)	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

PTO-1449 Information Disclosure Citation In an Application	Application No. 10/766,494		Applicant(s) Shilin Chen	
	Docket Number 074263.0208 (SC-98-026 CON2-B)	Group Art Unit 3672	Filing Date Jan. 28, 2004	

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A						
B						
C						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
D							
E							
F							

OTHER DOCUMENTS (Including Author, Title, Source, and Pertinent Pages)

DATE

G	Sii PLUS Brochure entitled "The PDC Plus Advantage", from Smith International (2 pages)	<i>no date</i>
<i>HA</i>	Specification sheet entitled "SQAIR Quality Sub-Specification", Shell Internationale Petroleum Mij. B.V., The Hague, The Netherlands, 1991 (2 Pages)	
<i>HA</i>	Brochure entitled "FM2000 Series-Tomorrow's Technologies for Today's Drilling.", Security DBS, Dresser Industries, Inc., 1994 (Pages) <i>2 no page #s</i>	
<i>HA</i>	Brochure entitled "FS2000 Series-New Steel Body Technology Advances PDC Bit Performance and Efficiency", Security DBS, Dresser Industries, Inc., 1997 (6 pages)	
K		
L		
M		
N		
O		
P		
Q		
R		
S		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

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07-01-05

JPW



ATTORNEY DOCKET NO.
074263.0208

1

PATENT APPLICATION
10/766,494

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen
Serial No.: 10/766,494
Filing Date: January 28, 2004
Group Art Unit: 2128
Examiner: Hugh M. Jones
Title: **ROLLER-CONE BITS, SYSTEMS, DRILLING
METHODS, AND DESIGN METHODS WITH
OPTIMIZATION OF TOOTH ORIENTATION**

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

EXPRESS MAIL CERTIFICATE	
NO.: EV 322271745 US	
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Name:	<u>Willie Jiles</u> Willie Jiles
Date:	<u>6-29-05</u>

EV322271745US

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully submits this Information Disclosure Statement and attached PTO Form 1449 and requests, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application. Copies of these references are also enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

ATTORNEY DOCKET NO.
074263.0208

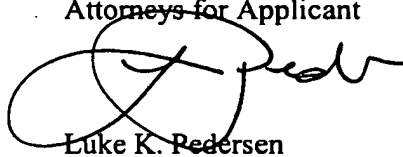
2

PATENT APPLICATION
10/766,494

This Information Disclosure Statement is submitted before an Office Action on the merits, and therefore, pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. However, if a fee is due, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant



Luke K. Pedersen
Reg. No. 45,003
Phone: 214.953.6655

Date: 6/29/05

CORRESPONDENCE ADDRESS:

Customer Number: **31625**
Attorney Docket Number: 074263.0208

PTO-1449		Application No. 10/766,494		Applicant(s) Shilin Chen		
Information Disclosure Citation in an Application		Docket Number 074263.0208		Group Art Unit 2128	Filing Date January 28, 2004	
		U.S. PATENT DOCUMENTS				
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	5,853,245	12/29/98	Price	384	96	10/1/97
B.						
C.						
D.						
E.						
F.						
G.						
H.						
I.						
J.						
K.						
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
L.	2327962	2/10/99	GB	E 21 B	10/16	X
M.	2388857	11/26/03	GB	E 21 B	10/16	X
N.						
O.						
NON-PATENT DOCUMENTS						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
P.	Notification of British Search Report for Application No. GB 0503934.2, (3 pages)					5/16/2005
Q.						
R.						
S.						
T.						
EXAMINER <i>Paul Jones</i>				DATE CONSIDERED 9/22/05		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						
U.S. PATENT AND TRADEMARK OFFICE						

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen
Serial No. To be determined
Filing Date: January 28, 2004
Title: **ROLLER-CONE BITS, SYSTEMS, DRILLING
METHODS, AND DESIGN METHODS WITH
OPTIMIZATION OF TOOTH ORIENTATION**

MAIL STOP PATENT APPLICATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Applicants respectfully submit this statement pursuant to 37 C.F.R. §§1.56, 1.97, and 1.98 and Manual of Patent Examining Procedure § 2001.06(c). The subject matter of the instant Application is involved in Civil Action No. 4-02CV269 in the United States District Court for the Eastern District of Texas, Sherman Division, styled *Halliburton Energy Services, Inc. v. Smith International, Inc.* (the "Litigation").

The attached PTO-1449 form includes documents relating to the Litigation and other documents. Applicant requests that such documents be considered and cited in the examination of the above-identified patent application. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

Attorney's Docket:
074263.0208

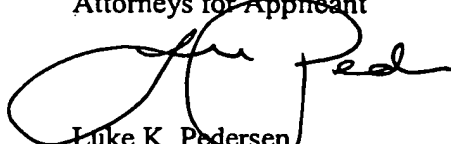
CONTINUATION
PATENT APPLICATION

2

Pursuant to ~~37 C.F.R. § 1.98(d)~~, all copies of references cited on the attached PTO 1449 Form ~~are not being furnished~~. Furthermore, pursuant to 37 C.F.R. § 1.97(b), no fee is believed to be due. If, however, a fee is due, the Commissioner is authorized to charge such fee to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant



Luke K. Pedersen
Reg. No. 45,003

Date: 1/28/04

CORRESPONDENCE ADDRESS

Customer Number: **31625**
Attorney Docket No.: 074263.0208

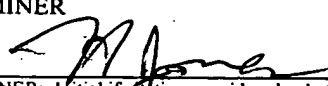
PTO-1449 Information Disclosure Citation In an Application	Application No. To be determined		Applicant(s) Shilin Chen
	Docket Number 074263.0208	Group Art Unit Unassigned	Filing Date Jan. 28, 2004

U.S. PATENT DOCUMENTS

		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A	1,847,981	03/01/1932	C.E. Reed	--	--	07/23/1930
	B	2,117,679	05/17/1938	C.E. Reed	225	71	12/27/1935
	C	2,122,759	07/05/1938	F.L. Scott	225	71	07/16/1936
	D	2,132,498	10/11/1938	H.C. Smith	225	71	07/22/1936
	E	2,165,584	07/11/1939	H.C. Smith	225	71	07/22/1936
	F	2,230,569	02/04/1941	J.H. Howard et al.	225	71	12/20/1939
	G	2,496,421	02/07/1950	Stokes	225	71	05/07/1946
	H	2,728,559	12/27/1955	E.G. Boice et al.	255	334	12/10/1951
	I	2,851,253	09/09/1958	E.G. Boice et al.	255	347	04/27/1954
	J	4,187,922	02/12/1980	Phelps	175	374	05/12/1978
	K	4,334,586	06/01/1982	Schumacher	175	374	06/05/1980
	L	4,343,371	08/01/1982	Baker III, et al.	175	329	04/28/1980
	M	4,393,948	07/01/1983	Fernandez	175	374	04/01/1981
	N	4,408,671	10/11/1983	Munson	175	377	02/19/1982
	O	4,427,081	01/24/1984	Crawford	175	376	01/19/1982

FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	P	SU 1441051 A2	11/30/1988	SU	E 21 B	10/16	X	
	Q	GB 2241266 A	08/28/1991	GB	E21B	10/46	X	
	R	EP 0511547 A2	04/14/1992	EPO	E 21 B	10/16	X	
	S	EP 0511547 A3	04/14/1992	EPO	E 21 B	10/16	X	
	T	EP 0511547 B1	04/14/1992	EPO	E 21 B	10/16	X	
	U	SU 1768745 A1	10/15/1992	SU	E 21 B	10/16	X	

EXAMINER 	DATE CONSIDERED 9/22/05
<small>EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.</small>	
U.S. PATENT AND TRADEMARK OFFICE	

not in any of the priority documents

PTO-1449	Application No. To be determined		Applicant(s) Shilin Chen
	Docket Number 074263.0208	Group Art Unit Unassigned	Filing Date Jan. 28, 2004

**Information Disclosure Citation
In an Application**

U.S. PATENT DOCUMENTS

		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A	4,611,673	09/16/1986	Childers et al.	175	340	11/21/1983
	B	4,657,093	04/14/1987	Schumacher	175	353	02/03/1982
	C	4,815,342	03/28/1989	Brett et al.	76	108	03/28/1989
	D	4,848,476	07/18/1989	Deane et al.	175	340	02/29/1988
	E	5,137,097	08/11/1992	Fernandez	175	228	10/30/1990
	F	5,197,555	03/30/1993	Estes	175	374	05/24/1991
	G	5,224,560	07/06/1993	Fernandez	175	374	05/18/1992
	H	5,311,958	05/17/1994	Isbell et al.	175	341	09/23/1992
	I	5,318,136	06/07/1994	Rowell et al.	175	24	03/06/1991
	J	5,341,890	08/30/1994	Cowthorne et al.	175	374	01/08/1993
	K	5,370,234	12/06/1994	Sommer, Jr. et al.	209	44.1	11/08/1991
	L	5,372,210	12/13/1994	Harrell	175	431	10/12/1993
	M	5,394,952	03/07/1995	Johns et al.	175	332	08/24/1993
	N	5,415,030	05/16/1995	Jogi et al.	73	151	04/08/1994
	O	5,416,697	05/16/1995	Goodman	364	422	07/31/1992
	P	5,421,423	06/06/1995	Huffstutler	175	374	03/22/1994

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Q	MA Dekun, <i>The Operational Mechanics of the Rock Bit</i> , Petroleum Industry Press, Beijing, China, (1996)	
R	D. Ma, D. Zhou & R. Deng, <i>The Computer Simulation of the Interaction Between Roller Bit and Rock</i> , (1995)	
S	Shilin Chen, <i>Linear and Nonlinear Dynamics of Drillstring</i> , (1994-1995)	
T	D. Ma, & J.J. Azar, <i>Dynamics of Roller Cone Bits</i> , (12/1985)	
U	D.K. Ma & S.L. Yang, <i>Kinematics of the Cone Bit</i> , (06/1985)	
V	Dma & J.J. Azar, <i>A New Way to Characterize the Gouging-Scraping Action of Roller Cone Bits</i> , (1989)	
W	Russian bit catalog listing items "III 190,5 T-LJB-1" and "III 109,5 TKZ-LJB", (prior 1997)	
X	L.E. Hibbs, Jr., et al, <i>Diamond Compact Cutter Studies for Geothermal Bit Design</i> , (Nov. 1978)	

EXAMINER <i>Angela Jones</i>	DATE CONSIDERED <i>9/22/05</i>
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

*not in
any of the
priority
documents*

PTO-1449 Information Disclosure Citation In an Application	Application No. To be determined		Applicant(s) Shilin Chen	
	Docket Number 074263.0208	Group Art Unit Unassigned	Filing Date Jan. 28, 2004	

U.S. PATENT DOCUMENTS

		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
<i>10</i>	A	5,704,436	01/06/1998	Smith et al.	175	27	03/25/1996
	B	5,715,899	02/10/1998	Liang et al.	175	374	02/02/1996
	C	5,730,234	03/24/1998	Putot	175	50	04/14/1996
	D	5,794,720	08/18/1998	Smith et al.	175	40	03/25/1996
	E	5,812,068	09/22/1998	Wisler et al.	340	855.5	12/12/1995
	F	5,813,480	09/29/1998	Zaleski, Jr. et al.	175	40	12/03/1996
	G	5,813,485	09/29/1998	Portwood	175	430	06/21/1996
	H	5,839,526	11/24/1998	Cisneros, et al.	175	431	04/04/1997
	I	6,002,985	12/14/1999	Stephenson	702	13	05/06/1997
	J	6,012,015	01/04/2000	Tubel	702	6	09/15/1997
	K	6,021,377	02/01/2000	Dubinsky et al.	702	9	10/23/1996
<i>18</i>	L	6,044,325	03/28/2000	Chakravarthy et al.	702	7	07/21/1998

FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	M							

LITIGATION DOCUMENTS

			DATE
	N	Plaintiff's Original Complaint for Patent Infringement and Jury Demand, filed September 6, 2002 in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 4 pages	09/06/2002
	O	Answer and Counterclaim of Smith International, filed March 14, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 6 pages	03/14/2003
	P	Response of Plaintiff and Counterclaim Defendant to Defendant's Counterclaim of Declaratory Judgment, filed April 3, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 3 pages	04/03/2003
	Q	First Amended Answer and Counterclaim of Smith International, filed October 9, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 8 pages	10/09/2003

EXAMINER

DATE CONSIDERED

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U.S. PATENT AND TRADEMARK OFFICE

*not in any of
the priority documents*

PTO-1449 Information Disclosure Citation In an Application	Application No. To be determined		Applicant(s) Shilin Chen
	Docket Number 074263.0208	Group Art Unit Unassigned	Filing Date Jan. 28, 2004

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	6,057,784	05/02/2000	Schaaf et al.	340	854.4	09/02/1997
B	6,095,262	08/01/2000	Chen, Shilin	175	57	08/31/1999
C	6,109,368	09/29/2000	Goldman et al.	175	39	11/13/1998
D	6,213,225	04/10/2001	Chen	175	57	08/31/1999
E	6,241,034	06/01/2001	Steinke et al.	175	331	09/03/1998
F	6,401,839	06/01/2002	Chen, Shilin	175	57	03/10/2000
G	6,412,577	07/02/2002	Chen, Shilin	175	57	08/01/2000
H	6,527,068	03/01/2003	Singh et al.	175	431	08/16/2000
I						
J						

OTHER DOCUMENTS
(Including Author, Title, Source, and Pertinent Pages)

DATE

K	Adam T. Bourgoynne Jr et. al., "Applied Drilling Engineering", Society of Petroleum Engineers Textbook Series (1991)	
L	J. P. Nguyen, "Oil and Gas Field Development Techniques: Drilling" (translation 1996, from French original 1993)	
M	"Making Hole", part of Rotary Drilling Series, edited by Charles Kirkley (1983)	
N	"Drilling Mud", part of Rotary Drilling Series, edited by Charles Kirkley (1984)	
O	H.G. Benson, "Rock Bit Design, Selection and Evaluation", presented at the spring meeting of the pacific coast district, American Petroleum Institute, Division of Production, Los Angeles, May, 1956	
P	J.C. Estes, "Selecting the Proper Rotary Rock Bit", Journal of Petroleum Technology, Nov., 1971, pp1359-1367	
Q	Sikarskie, et. al., "Penetration Problems in Rock Mechanics", American Society of Mechanical Engineers, Rock Mechanics Symposium, 1973	
R	Dykstra, et. al., "Experimental Evaluations of Drill String Dynamics", SPE 28323, 1994	
S	Kenner and Isbell, "Dynamic Analysis Reveals Stability of Roller Cone Rock Bits", SPE 28314, 1994	

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not in any
of the priority
documents